



Alpha Magnetic Spectrometer  
NASA / DOE

## Alpha Magnetic Spectrometer Weekly Reports

August 20, 2004



National Aeronautics and  
Space Administration

### Upcoming Events:

- Meeting to discuss CITE Maintenance Costs and the AMS-02 Avionics Functional Interface Test (FIT) - September 9, 2004 – KSC
- Meeting to develop the Integration Plan for AMS-02 at CERN - September 13 - 16, 2004 – Geneva
- Thermal Control System (TCS) Delta Critical Design Review ( $\Delta$ CDR) - October 18 - 19, 2004 – JSC
- AMS General TIM - October 20 - 22, 2004 – JSC
- STA Vacuum Case Delivery (on dock at STADCO) - October 13, 2004
- Electronics TIM and UPS CDR - November 1-5 – Taiwan
- Flight Vacuum Case Delivery (on dock at STADCO) - December 11, 2004
- AMS General TIM - January 10 - 14, 2005 – KSC
- AMS-02 Avionics Functional Interface Test (FIT) - January 2005
- Tracker Thermal Control System (TTCS) PDR - January 2005, CDR - April 2005
- AMS-02 Phase II Safety Review - March 2005 - JSC

### Upcoming Tests:

- O-Ring Test Fixture (OTF) Vacuum Test - On going - J13
- Interface Plate Static Test - Date TBD - Location TBD
- Lower Joint Static Test - Date TBD - Location TBD
- STA Acoustic Test - Date TBD - ESTEC - Noordwijk, Netherlands (Schedule under review)
- STA Sine Sweep Test - Date TBD - INFN - Terni, Italy (Schedule under review)
- Full Assembly Modal & Static Tests - Date TBD - IABG - Munich, Germany





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### Status:

- LM AMS personnel traveled to STADCO in Los Angeles to discuss a number of concerns with the Vacuum Case (VC) delivery schedule. LM Procurement personnel participated via telecon. The schedule has continued to slip and the agreed to delivery dates for the Structural Test Article (STA) and Flight Vacuum Case are in jeopardy. A number of interim milestones for the components of the VC were discussed in an effort to determine the true status of the subcontract. The schedule is definitely compressed and can be termed optimistic. Many of the components are complete up to metal finishing. STADCO is holding the parts until all are complete to reduce their costs for metal finishing. Discussions between AMS and LM Procurement are ongoing to determine if partial payment can be made to STADCO as a gesture of goodwill.
- Lockheed Martin (LM) Alpha Magnetic Spectrometer (AMS) personnel participated on the Vacuum Case Shipping Fixture Critical Design Review (CDR) conducted at STADCO. No significant issues were identified with the Shipping Fixture. Several action items were assigned to answer questions that came up during the CDR and to close CDR review items.
- LM AMS personnel supported a meeting of the AMS-02 Configuration Control Board (CCB). Two revised AMS documents (Project Plan and Configuration Control Plan) were presented to the CCB for approval. Both were approved by the Board and signed.
- The fastener lists for the USS-02 and the Primary Support Stand have been updated and are under review by design.
- RJV personnel provided a proposed layout for the USS-02 Assembly area in JSC building 10. LMSO engineers are currently reviewing the layout.
- LMSO engineers attended a viewing of the Remotely Operated Electrical Umbilical (ROEU) Payload Disconnect Assembly (PDA) at Boeing Houston Product Support Center (HPSC). This PDA will be transferred into AMS bond and installed on the AMS-02 Payload when required.
- One member of the LM AMS Team saw a bear while visiting Yellowstone National Park. No telling who was more terrified - man or bear. Photographic documentation is available on request.
- Vacuum Case Milestones
  - First Article Conical Flange Complete - July 2004
  - Weld Fixture Complete - August 2004
  - STA Support Rings Complete - August 2004





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- Weld Development Complete - August 2004
- STA Conical Flanges Complete - August 2004
- Shipping Fixture Complete - August 2004
- STA Line Drill Operations Complete - August 2004
- Flight Support Rings Complete - September 2004
- First Article Weld Complete - September 2004
- Flight Conical Flanges Complete - September 2004
- STA Match Drill Procedure Complete - September 2004
- STA Weld Complete (for proof test @ STADCO) - September 2004